

AORSI-100-SG Workbook

Overview

This course emphasizes the role of personal protective equipment (PPE) and vehicle safety gear in reducing injury risk in off-road operations. Students will explore the differences between regulatory minimums and best practices, learning how the right equipment choices directly improve safety outcomes.

Learning Objectives

- Identify essential rider PPE and its purpose.
- Compare regulatory requirements vs. best practice equipment.
- Understand correct helmet fitting and harness systems.
- Recommend appropriate gear for various off-road environments.

Module 1: Helmets, Goggles, Gloves, Boots, and Suits

Personal protective equipment (PPE) is the first line of defense for off-road riders. Helmets protect against head injuries, goggles safeguard vision, gloves improve grip and protect hands, boots stabilize ankles and prevent crush injuries, and riding suits shield against abrasion and weather. Each item must be chosen for durability, fit, and compliance with safety standards.

Instructor Guidance: Demonstrate correct helmet fitting using multiple examples of poor vs. proper fit.

Course Design Suggestion: Provide PPE samples for hands-on practice. Allow students to inspect and identify worn-out or non-compliant gear.

Exercise: Create a PPE checklist for an off-road trip in desert conditions.

Reflection Question: Why is fit just as important as the protective rating of PPE?

Module 2: Seatbelts, Harnesses, and Roll Protection Systems

Vehicle safety gear is as important as rider PPE. Seatbelts and multi-point harnesses prevent ejection during rollovers, while roll cages and bars provide structural protection. Students must understand the correct installation and usage of these systems to maximize safety. Incorrect use, such as loose harnesses, can increase injury risks.

Instructor Guidance: Demonstrate how to properly adjust a four-point harness. Contrast with examples of improper adjustments.

Course Design Suggestion: Use rollover simulation videos to highlight the role of roll protection and harnesses.

Exercise: Write down three differences between a standard seatbelt and a racing-style multi-point harness.

Reflection Question: Why might improperly used safety gear be more dangerous than none at all?

Module 3: Communication & Emergency Equipment

Emergency preparedness requires more than protective clothing. Radios, satellite communicators, first aid kits, and fire extinguishers are vital safety tools. Students should evaluate what equipment is essential based on environment and trip length. Proper communication protocols help ensure faster emergency response.

Instructor Guidance: Introduce common radio systems (FRS, GMRS, HAM) and their uses in off-road safety.

Course Design Suggestion: Have students assemble an emergency gear kit tailored to a specific off-road environment (e.g., mountains, desert, snow).

Exercise: List five essential pieces of emergency equipment for a remote trail expedition.

Reflection Question: How does reliable communication improve group safety during emergencies?

Module 4: Regulatory vs Recommended Gear

Legal requirements for PPE and vehicle safety gear vary by jurisdiction, but best practices often exceed regulations. Students should learn to research local laws and supplement them with recommendations from safety organizations. This ensures compliance while also maximizing safety for operators and passengers.

Instructor Guidance: Compare minimum state PPE requirements with industry best practices, showing where gaps exist.

Course Design Suggestion: Create a debate exercise where students argue for and against requiring best-practice gear by law.

Exercise: Research the PPE requirements for off-road riders in your state or country and compare them to AORSI recommendations.

Reflection Question: Why should off-road operators go beyond legal minimums when selecting safety gear?

Final Assessment

Task: Demonstrate proper fitting of helmet, goggles, gloves, boots, and a harness. Students will also complete a short quiz covering PPE types, vehicle safety gear, and regulatory vs best practice considerations.

1. What are the key elements of a properly fitted helmet?
2. List three advantages of using a multi-point harness over a standard seatbelt.
3. What emergency equipment should always be carried on a remote off-road trip?
4. How do local regulations for PPE differ from AORSI best practice recommendations?
5. Why does PPE fit matter as much as the equipment rating?

Duration: 3 hours (can be delivered online or in-person)